IOWA DEPARTMENT OF NATURAL RESOURCES

FOR MINES OF SPAIN SRA H.M.A PAVEMENT JOINT REPAIR

DUBUQUE COUNTY, IOWA

PROJECT #09-03-31-10





DIRECTORY					
PROJECT N	1ANAGER	CONSTRUCTION INSPECTOR			
COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES	COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES		
ADDRESS	956 E MAIN	ADDRESS	956 E MAIN		
CITY,STATE,ZIP	NEW HAPTON, IA 50319	CITY,STATE,ZIP	NEW HAPTON, IA 50319		
CONTACT	MEL PACOVSKY	CONTACT	MEL PACOVSKY		
TELEPHONE	319-240-3553	TELEPHONE	319-240-3553		
FAX		FAX			
EMAIL	Mel.Pacovsky@dnr.iowa.gov	EMAIL	Mel.Pacovsky@dnr.iowa.gov		

PROJECT DESCRIPTION

THIS PROJECT INVOLVES FULL DEPTH H.M.A PAVEMENT FINISH JOINT PATCHES AND FULL DEPTH H.M.A FINISH PATCHES AT MINES OF SPAIN SRA OTHER INCIDENTAL WORK AS REQUIRED BY D.N.R CONSTRUCTION INSPECTOR IN DUBUQUE COUNTY, IOWA.

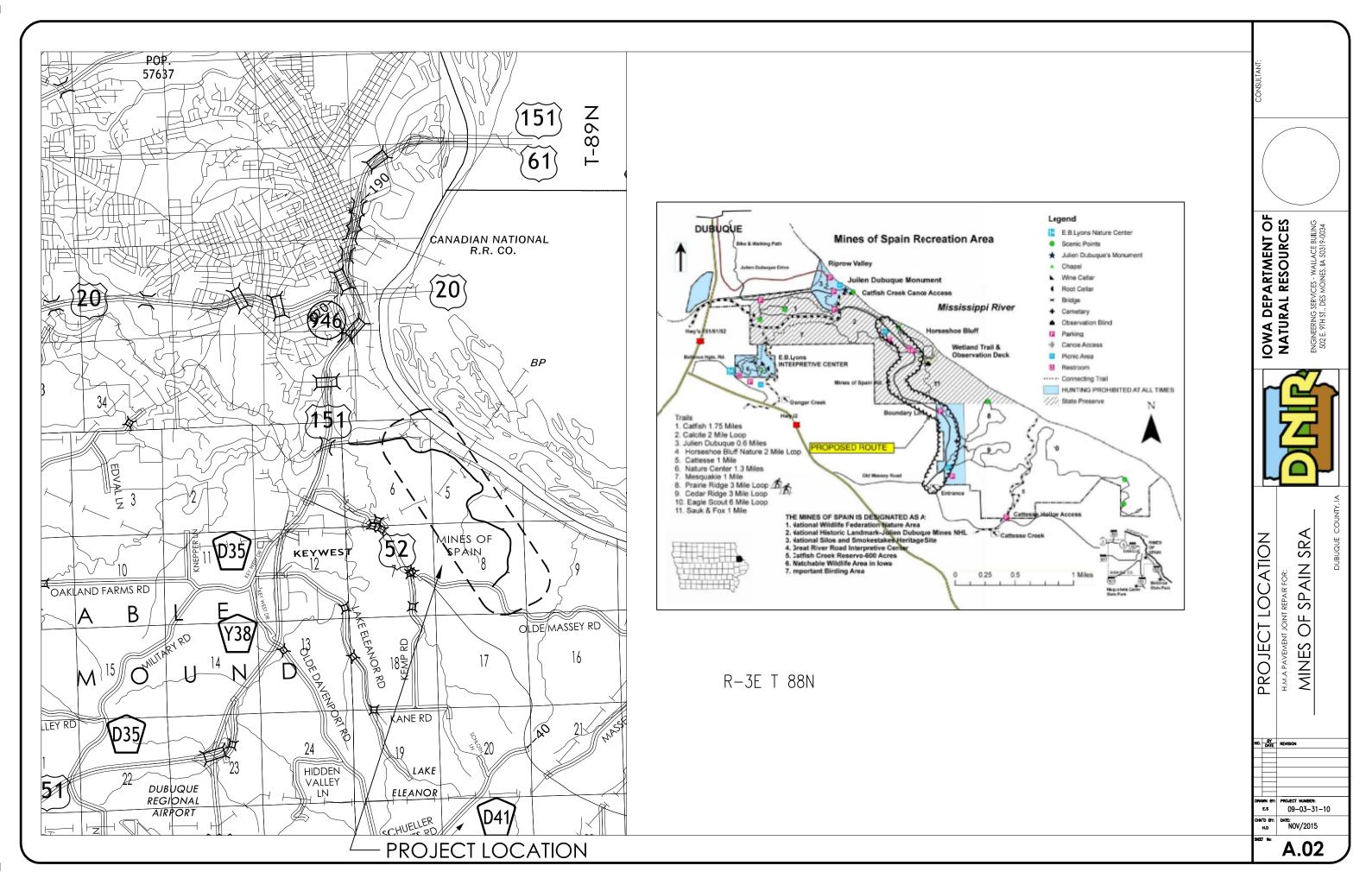
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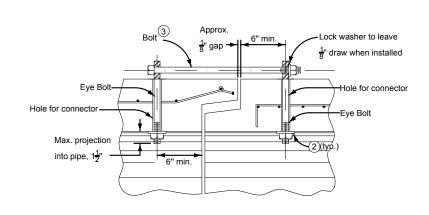
AUTHORIZATION - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT | FORESTRY

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SHEET INDEX

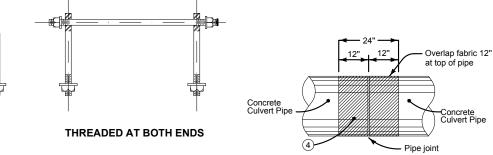




SECTION OF PIPE CONNECTOR



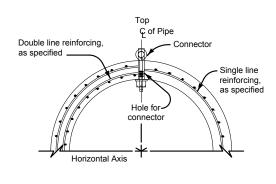
PIPE JOINT WRAPPING



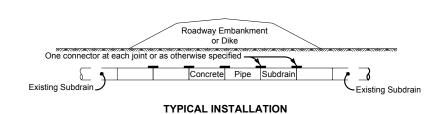
PIPE SIZE (in)	CONNECTOR AND BOLT SIZE (in.)	HOLE FOR CONNECTOR (in.)
12 to 27	5	7 8
30 to 60	34	1.0
66 to 132	1.0	1 1/4

OPTIONAL BOLTS/CONNECTORS

ONE BEND END



TYPICAL SECTION (Non-Sealed Joint)



TYPE 1 CONNECTION

Wrap all joints on concrete roadway pipe

Use Type 3 Connections on all culvert pipes, unless specified otherwise. Refer to Materials I.M. 445.01for Connector requirements.

Minimum 2 threads showing at all threaded

Connections not required on pipe sections installed by trenchless methods.

For belled concrete pipe joints, connectors may be installed on the inside of the pipe.

TYPE 1

One connector at the top of the pipe section.

TYPE 2 (Sealed Joint)

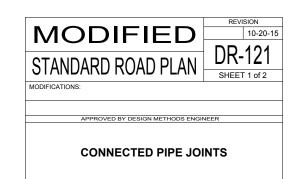
Two connectors near the top of the pipe section. For details of reinforcement, refer to AASHTO M 170 for the class of pipe required. Refer to Materials I.M. 491.09 for seal requirements.

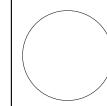
TYPE 3 (Non - Sealed Joint)

Two connectors near the top of the pipe section. For details of reinforcement, refer to AASHTO M 170 for the class of pipe required.

- ① If holes are field drilled, place a ribbon of butyl sealant around bolts before placing 3 in. x 3 in. x ,in. plate on bolts through corrugated metal pipe and tightening nuts.
- 1 1 inch round x minch thick washer or 3 in. x 3 in. x ,in. square plate (shaped to pipe
- spacers allowed per Materials I.M. 451. Refer to Optional Bolts detail.
- Engineering fabric for embankment erosion

Possible Tabulation: 104-3





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engineering Services - wallace i 502 E. 9TH ST., DES MOINES, IA 5031 (

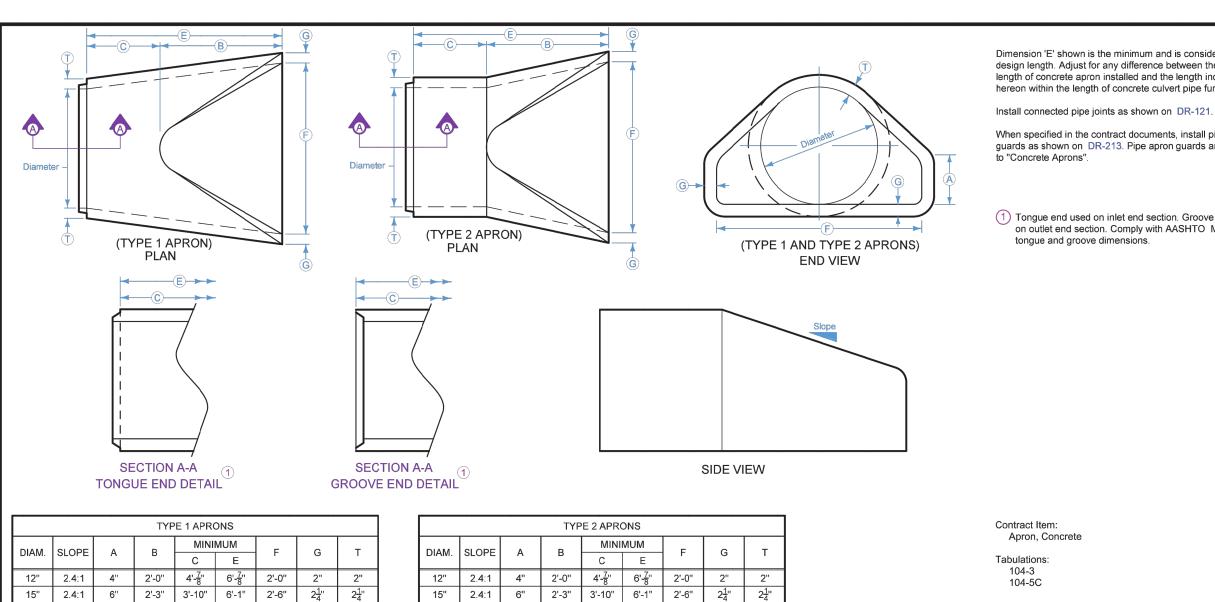


SRA SPAIN : JOINT **DETAILS** О MINES

BY REVISION 09-03-31-10

B.01

NOV/2015



			TYP	E 2 APR	ONS			
DIAM.	SLOPE	Α	В	MINIMUM		F	G	т
DIAW.	OLOI L			С	E	'	0	<u>'</u>
12"	2.4:1	4"	2'-0"	4'- 7 ''	6'- 7 ''	2'-0"	2"	2"
15"	2.4:1	6"	2'-3"	3'-10"	6'-1"	2'-6"	2 <u>1</u> "	2 <u>1</u> "
18"	2.3:1	9"	2'-3"	3'-10"	6'-1"	3'-0"	2 <u>1</u> "	2 <u>1</u> "
21"	2.4:1	9"	3'-0"	3'-1 ¹ / ₂ "	6'-1 1 "	3'-5"	3"	3"
24"	2.5:1	9 <u>1</u> "	3'-7 1 "	2'-6"	6'-1 1 "	4'-0"	3"	3"
27"	2.5:1	10 <u>1</u> "	4'-1 "	2'-0"	6'-1 1 "	4'-4"	3 <u>1</u> "	3 <u>1</u> "
30"	2.5:1	12"	4'-6"	1'-7 3 "	6'-1 3 ''	5'-0"	3 <u>1</u> ''	3 <u>1</u> "
36"	2.5:1	15"	5'-3"	2'-9"	8'-0"	6'-0"	4"	4"
42"	2.5:1	21"	5'-3"	2'-9"	8'-0"	6'-6"	4 <u>1</u> ''	4 <u>1</u> "
48"	2.5:1	24"	6'-0"	2'-0"	8'-0"	7'-0"	5"	5"
54"	1.9:1	24 <u>1</u> "	5'-5"	2'-7"	8'-0"	7'-6"	5 <u>1</u> "	5 <u>1</u> "
60"	1.4:1	24 1 "	5'-0"	3'-0"	8'-0"	8'-0"	5 <u>1</u> ''	6"
66"	1.7:1	30"	6'-0"	2'-3"	8'-3"	8'-0"	5 <u>1</u> ''	6"
72"	1.4:1	24"	6'-6"	1'-9"	8'-3"	9'-0"	6"	7"
78"	1.8:1	36"	7'-6"	1'-9"	9'-3"	9'-6"	6 <u>1</u> ''	7 <u>1</u> "
84"	1.5:1	23 1 "	7'-6 ¹ ''	1'-9"	9'-3 <u>1</u> "	10'-0"	6 <u>1</u> ''	8"

2<u>1</u>"

3"

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4"

4<u>1</u>"

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9<u>1</u>"

10¹/₂"

12"

15"

21"

24"

27"

29¹/₂"

30"

30"

36"

291"

2.3:1

2.4:1

2.5:1

2.5:1

2.5:1

2.5:1

2.5:1

2.5:1

1.8:1

1.6:1

1.7:1

1.6:1

1.8:1

1.3:1

21"

24"

27"

30"

36"

42"

48"

54"

60"

66"

72"

78"

2'-3"

3'-0 "

3'-71"

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6'-13"

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9'-31"

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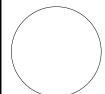
Dimension 'E' shown is the minimum and is considered the design length. Adjust for any difference between the actual length of concrete apron installed and the length indicated hereon within the length of concrete culvert pipe furnished.

When specified in the contract documents, install pipe apron guards as shown on DR-213. Pipe apron guards are incidental

1 Tongue end used on inlet end section. Groove end used on outlet end section. Comply with AASHTO M 170 for



CONCRETE APRONS



IOWA DEPARTMENT OF NATURAL RESOURCES

ERING SERVICES - WALLACE BUILING 9TH ST., DES MOINES, IA 50319-0034



SPAIN SRA DETAILS P MINES

D. BY REVISION 09-03-31-10 NOV/2015

B.02

	GENERAL NOTES:
TEM	DESCRIPTION
Α.	The contractor shall notify the following two weeks prior to construction: 1. District Inspector: MEL PACOVSKY 309-240-3553
	2. Project Manager: MEL PACOVSKY 309-240-3553
В.	The contractor shall verify actual locations and elevations with the D.N.R Inspector.
C.	All work shall conform to and be performed in accordance with all applicable codes and ordinances.
D.	The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specifications, special provisions and contract.
E.	The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the D.N.R Inspector of any discrepancies, omissions and/or conflicts prior to proceeding with the work.
F.	The contractor is responsible for disposal for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right—of—way, unless specifically stated in the plans or approved by the D.N.R Inspector.
G.	The contractor shall not disturb desirable grass areas and desirable trees outside construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the D.N.R inspector.
Н.	The contractor is expected to have materials, equipment and labor available on a daily basis to install and maintain erosion control features on the project.
l.	The contractor shall be responsible for any damage to existing facilities resulting from their negligence, or that of a subcontractor, and said repairs shall be approved by the owner.



ENGINEERING SERVICES - WALLACE BUILING 502 E, 9TH ST., DES MOINES, IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

DUBUQUE COUNTY,IA

HMA PAVEMENT JOINT REPAIR FOR: MINES OF SPAIN GENERAL NOTES

PROJECT NUMBER: 09-03-31-10

NOV/2015

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ESTIMATED PROJECT QUANTITIES ITEM UNIT TOTAL DESCRIPTION 1 MOBILIZATION L.S EACH FULL DEPTH HMA FINISH JOINT PATCHES BY COUNT 130 2 3 FULL DEPTH HMA FINISH PATCHES S.Y 190 L.S 4 REMOVE CONCRETE PATCH L.S 5 TRAFFIC CONTROL S.Y 25 SUB-BASE REPAIR 6 L.S 7 REMOVE EXISTING 24" CULVERT AND APRONS L.F 8 24" DIA. CONCRETE CULVERT AND CONNECTORS 60 9 EACH 24" DIA. CONCRETE APRONS AND CONNECTORS

ESTIMATE REFERENCE INFORMATION:

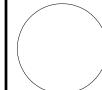
THE FOLLOWING SPECIAL CONDITIONS APPLY TO THE CONTRACT PROJECT 09-03-31-10, HMA PAVEMENT JOINT REPAIR, MINES OF SPAIN SRA. DUBUQUE COUNTY IA.

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ITEM	DESCRIPTION			
1.	THIS PROJECT CONSIST OF FULL DEPTH H.M.A PAVEMENT FINISH JOINT PATCHES AND FULL DEPTH H.M.A FINISH AS PER IOWA D.O.T STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SERIES 2015, SECTION 2528 TRAFFIC CONTROL AND 2529 FULL DEPTH FINISH PATCHES WITH THE FOLLOWING MODIFICATIONS.			
2.	BID ITEM NO. 2 FULL DEPTH H.M.A FINISH JOINT PATCHES BY COUNT SHALL BE MINIMUM 3' WIDE AND MAXIMUM 4' AND DEPTH TO BE SAME AS EXISTING. IF THE CONDITIONS ARE FIELD ENGINEER IS SUCH THAT THE WIDTH OF THE PATCH NEEDS TO BE WIDER, THE EXTRA WIDTH WILL BE PAID AS ITEM 3 FULL DEPTH H.M.A FINISH PATCH BY S.Y			
3.	BID ITEM NO.3 FULL DEPTH H.M.A FINISH PATCH BY S.Y SHALL BE A MINIMUM OF 6" DEPTH AND IS TO BE CONSIDERED TO BE PATCHES THAT MAY RUN LONGITUDINALLY ALONG THE EDGE OF THE ROADWAY AND/OR TRANSVERSELY ACROSS THE ROADWAY. LOCATION AND SIZE WILL BE DETERMINED ON SITE DURING CONSTRUCTION.			
4.	REPLACEMENT OF THE P.C.C CONCRETE PATCH IS INCLUDED IN THIS ITEM. <u>BID ITEM NO.4</u> REMOVE CONCRETE PATCH, THIS CONSIST OF 18 LF X 20 LF CONCRETE PATCH TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. PATCHING SHALL BE PAID AS PER ITEM BID ITEM NO.3.			

DURING CONSTRUCTION OPERATION MONDAY THROUGH FRIDAY. CLOSURES SHALL BE PLACED SO PUBLIC HAS A TURN AROUND IN A PARKING LOT OR ROADWAY. A 'NO THROUGH TRAFFIC' SIGN SHALL BE ERECTED AT EACH END OF ROAD WHEN THE ROAD IS CLOSED. BID ITEM NO.6 SUB-BASE REPAIR IS TO BE USED IN THE EVENT THAT FIELD ENGINEER DETERMINES THAT UPON THE

BID ITEM NO.5 TRAFFIC CONTROL. THROUGH TRAFFIC MAY BE CLOSED IN THE CONSTRUCTION AREA FOR PUBLIC USE

REMOVAL OF PAVEMENT THE SUB-BASE REQUIRES TO BE REPLACED. A MINIMUM OF 6" DEEP SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AS PER IOWA D.O.T STANDARD SPECIFICATION SERIES 2015



IOWA DEPARTMENT OF NATURAL RESOURCES

EERING SERVICES - WALLACE BUILING 9TH ST., DES MOINES, IA 50319-0034



JOINT REPAIR FOR:

- SPAIN

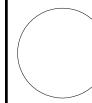
ESTIMATED QUANTITIES HMA PAVEM

O. BY REVISION

PROJECT NUMBER: 09-03-31-10 NOV/2015

C.02





ENGINEERING SERVICES - WALLACE BUILING 502 E. 9TH ST., DES MOINES, IA 50319-0034

H.M.A PAVEMENT JOINT REPAIR FOR MINES OF SPAIN SRA

PROJECT NUMBER: 09-03-31-10

NOV/2015

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